

Solution:

It has been a challenging problem for finding such sequence by hands. So I wrote a code that checks all possible combination of jerseys used from pi. It turns out that there are 12 different sequences that exist with the conditions specified in the assignment. Starting from 82nd position in pi sequence of digits the code terminates and it is impossible to add new jersey to existing ones.

That is how they look like:

3 14 15 92 65 35 89 79 32 38 46 26 4 33 83 27 9 50 28 84 19 7 1 69 39 93 75 10 5 82 0 97 49
44 59 2 30 78 16 40 62 86 20 8 99 digits used = 81 numbers from jerseys used = 45

3 14 15 92 65 35 89 79 32 38 46 26 4 33 83 27 9 50 28 84 19 71 69 39 93 75 10 5 82 0 97 49
44 59 2 30 7 81 6 40 62 86 20 8 99 digits used = 81 numbers from jerseys used = 45

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44 59 2 30 78 1 6 40 62 86 20 8 99 digits used = 81 numbers from jerseys used = 45

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